

Channel Construction Contracts

Contractor: Great Lakes Dredge & Dock Award Date: August 22, 2000 Construction Complete: April 2001

Contract Value: \$13,640,420

Big Island Contract

Ocean Bar I Contract

Contractor: Great Lakes Dredge & Dock Award Date: August 22, 2000 Construction Complete: January 2002

Contract Value: \$56,201,150

Horseshoe Shoal Contract (Kure Beach Renourishment) Contractor: Great Lakes Dredge & Dock Award Date: January 22, 2001 Construction Complete: May 2001 Contract Value: \$5,762,032

Ocean Bar II Contract (Brunswick 933) Contractor: Bean-Stuyvesant Award Date: January 24, 2001 Construction Complete: December 2002 Contract Value: \$64,727,900

Anchorage Basin/Passing Lane Contract* Contractor: Great Lakes Dredge & Dock

Award Date: June 3, 2002

Construction Complete PH I: January 9, 2004 Construction Complete PH II: April 2006

Contract Value: \$95,923,361

Clean Sweep - Unsuitable Material Contractor: Bean-Stuyvesant Award Date: September 30, 2003 Construction Complete: February 2004 Contract Value: \$5,698,408

Clean Sweep - Beach Disposal Contractor: Great Lakes Dredge & Dock Award Date: September 2004 Construction Complete: February 2005

Contract Value: \$7,171,381

Future Contracts

Fish Passage

(beach quality material to Bald Head Island)

The following construction contract schedules

are dependent on funds availability thru FY08

Eagle Island FY07 Improvements

Northeast Cape Fear River

Mitigation Island and Disposal Area Improvement Contracts Eagle Island Cell 2 Raise

Eagle Island South Cell Dike Contractor: Higgerson Buchanan Award Date: July 31, 1997

Construction Complete: December 1998

Contract Value: \$4,092,448

Eagle Island Cell 1 Dike Raising Contractor: Atlas Resource Mgmt. Award Date: May 13, 1999

Construction Complete: September 1999

Contract Value: \$912,292

Eagle Island Cell 2 & 3 Dike Raising/Island 13 Mitigation

Contractor: Higgerson Buchanan Award Date: August 24, 1999 Construction Complete: June 2002 Contract Value: \$9,479,845

Contractor: Aldridge Brothers Award Date: February 26, 2002 Construction Complete: March 2003

Contract Value: \$1,529,463

Eagle Island Cell 1&3 Dike Raising Contractor: Atlas Resource Mgmt. Award Date: January 16, 2003

Construction Complete: November 2003

Contract Value: \$1,876,495

Eagle Island Cell 1&3 Dike Raising FY05/06 Contractor: Aldridge Brothers

Award Date: September 2004 Contract Value: \$6,443,993

WILMINGTON HARBOR, NC - 96 ACT NAVIGATION PROJECT

INFORMATION PAPER

April 19, 2005

Combined New Start Construction: With the signing of the Energy and Water Appropriations Bill on October 13, 1998 three separate projects (Wilmington Harbor - Northeast Cape Fear Rivers project, Wilmington Harbor - Channel Widening project, and Cape Fear - Northeast Cape Fear Rivers project) were combined into one, the Wilmington Harbor, NC - 96 Act project. The dredged material disposal facilities improvements associated with maintenance of the existing navigation channel have been added to the deepening project. This element includes incrementally raising the dikes on Eagle Island to an elevation of 40 feet over a 20-year period. The combined project will be constructed with multiple contracts at an estimated total project cost of \$467,000,000 including \$49 million for disposal area modifications for maintenance of existing 38' project. This is the current total project cost estimate inflated through construction completion. The Federal cost share is estimated to \$314,250,000 and the non-Federal cost share is estimated to \$152,750,000. The project would produce estimated annual benefits of \$39 million compared to the estimated annual cost of \$29 million resulting in a benefit to cost ratio of 1.4.

Project Description: Planned improvements consist of deepening the ocean bar and entrance channels from the authorized depth of 40 feet to 44 feet; deepening the authorized 38-foot project to 42 feet up to and including the anchorage basin immediately upriver from the State Ports Authority dock, and extending the anchorage basin northward by 300 feet; the existing 400-foot wide channel will be widen to 600 feet over a total length of 6.2 miles including Lower and Upper Midnight and Lower Lilliput reaches; widen five turns and bends by 100 to 200 feet providing a total average channel width of 500 to 675 feet; widening the Fourth East Jetty Channel to 500 feet over a total length of 1.5 miles; deepening the 32-foot channel between Castle Street and the Hilton Railroad Bridge, the 32-foot turning basin just above the mouth of the Northeast Cape Fear River on the west side to 38 feet, and the 25-foot channel from the Hilton Railroad Bridge to 750 feet upstream all to a depth of 38 feet; deepening the 25-foot channel from 750 feet upstream of the Hilton Railroad Bridge to the turning basin near the upstream limits of the project to 34 feet, along with widening of the channel from 200 to 250 feet; and widening the turning basin from 700 to 800 feet; and mitigation to include construction of a 30-acre embayment, acquisition of about 700 acres of existing marsh and upland areas for preservation of habitat to offset losses of wetlands and primary nursery areas, and construction of a fish passage structure around Lock & Dam #1.

Special Project Features:

- 1. A re-aligned ocean entrance channel has been incorporated into the channel improvement features. The reduction in the total project cost estimate was about \$39 million.
- 2. The sandy material located in the lower portion of the navigation channel offers the potential for beneficial uses to nearby beaches. Sand excavated during the Ocean Bar II contract was placed on the beaches of Brunswick County. The estimated sand quantity to be removed with this contract was 6,000,000 cubic yards. The communities of Bald Head Island, Caswell Beach, Oak Island, and Holden Beach shared the sand. In New Hanover County, the Carolina Beach Area South (Kure Beach) received approximately 800,000 cubic yards on the beach from the Horseshoe Shoal channel improvement contract
- 3. Prevention of Degradation (POD) includes the acquisition of swamp and upland buffer and changing land use from forestry and development to conservation, thereby reducing the potential for future risks to adjacent primary nursery. The proposed acquisition area includes about 650 acres of mature swamp forest and about 60 acres of upland longleaf pine forest. This contains about 29 acres of primary nursery, including tidal creek habitat and the disarticulated shoreline of the Northeast Cape Fear River within about 50 feet of the swamp forest. Adjacent wetlands and riparian uplands associated with this site are mostly undeveloped and include marsh, wooded swamp, and longleaf pine forest, with limited residential and commercial development. In addition to these features, the plan will preserve unique environmental features found on the site including red-cockaded woodpecker habitat, virgin cypress trees, Atlantic white cedar, and longleaf pine forest. All lands acquired will be transferred to an appropriate State or Federal agency or land trust for management.
- 4. The U.S. Army Corps of Engineers, Wilmington District, and the Wilmington Harbor project sponsor, the State of North Carolina, have agreed to construct a fish passage structure at Lock and Dam No. 1 on the Cape Fear River. This is the most downstream structure blocking fish passage on the river, and successful passage of fish around Lock and Dam No. 1 will open up approximately 32 miles of the main stem of the Cape Fear River to anadromous and other fish species. The fish passage will not change any federally authorized project purposes such as operation of the lock. All interested agencies and experts have been involved in developing the best design for the fish passage structure. Following construction, monitoring will be conducted to determine how effective the structure is in passing fish.
- 5. Island 13 Environmental Mitigation Area: This contract created wetlands mitigation area from an old dredge disposal island. It is considered the first construction contract to take place within the Cape Fear River. It was awarded as a part of the Eagle Island improvements contract in August 1999. The State of North Carolina, resource agencies and stakeholders applauded this as being the first significant construction contract. Its significance was that it was for mitigation and not channel deepening as has been the traditional sequencing of work. The Governor, media and resource agencies were on hand to celebrate the groundbreaking for the Wilmington Harbor Project with this contract.
- 6. Completion of Anchorage Basin/Passing Lane Contract Phase 1 and the Clean Sweep Contract 1 by March 2004 (COMPLETED 9 JANUARY 2004 3 MONTHS AHEAD OF SCHEDULE) thus allowing deep draft to be realized at the North Carolina State Port Authority facility in Wilmington, NC. This milestone allows the project to begin realizing approximately 75% of the \$39,000,000 total annual project benefits in FY 2004.

Major Milestones:

Milestone	<u>Status</u>	Award Date	<u>Complete</u>
PCA Signed	Complete	18 Mar 99	18 Mar 99
Ocean Bar I Channel Improvements Contract	Complete	22 Aug 00	30 Apr 01
Keg Island Channel Improvements Contract	Complete	22 Aug 00	28 Jan 02
Third Disposal Area Contract	Complete	19 Mar 01	May 01
Mitigation Area Planting	Complete	03 Mar 01	May 01
Ocean Bar II Channel Contract (Sand for Brunswick County)	Complete	24 Jan 01	Nov 02
Horseshoe Shoal Channel Contract (Sand for Kure Beach)	Complete	22 Jan 01	23 May 01
Eagle Island Cell 2 Disposal Area Contract	Complete	26 Feb 02	Mar 03
Eagle Island Cells 1&3 FY03 Improvements	Construction	16 Jan 03	October 2003
Anchorage Basin/ Passing Lane Channel Improvements Contract Award	Construction	03 Jun 02	
Phase I Construction Complete (completed 3-months ahead of schedule)			
Phase II Construction Complete			July 2006
Relocation of Navigation Aids to New Alignment by USCG	Complete		05 Dec 2003
Clean Sweep – Contract 1 – Unsuitable Material	Complete	30 Sep 03	January 2004
DEEP WATER TO THE N.C. STATE PORTS FACILITY (WILMINGTON)			9 JAN 2004
Clean Sweep – Contract 2 – Beach Disposal	Complete	21 Sep 04	February 2005
FY05 Payback of the FY04 Funds borrowed from Charleston District		Oct 2004	FY2005
**Fish Passage Structure	Design Complete	FY06	6-9 months
**Eagle Island FY05/06 Improvements	Construction	21 Sep 04	Sept 2006
**Eagle Island FY07 Improvements (if required)	Design Pending	Sept 2005	Sept 2006
**Northeast Cape Fear River Contract Award	In Design	FY06	FY08
Dredge Material Management Plan	Development	N/A	FY08

NOTE 1: Anchorage Basin/Passing Lane Contract Phase II, Fish Passage Structure Contract, Eagle Island FY07 Improvements Contract and the Northeast Cape Fear River Contract are currently scheduled for award in FY 2006 pending Federal funds availability.